

WHAT IS CLAIMED IS:

1 1. A valve device for a silencer, which opens a bypass
2 passage provided in the silencer to flow exhaust gas through the
3 bypass passage when exhaust gas pressure rises to a certain pressure,
4 the valve device comprising:

5 a base having a valve opening through which exhaust gas flows;
6 and

7 a plate-like valve for opening and closing the valve opening,
8 the plate-like valve being fixed to the base at its proximal portion,
9 wherein the plate-like valve is bent at both side edges thereof
10 in a certain range extending from its distal end toward the proximal
11 portion.

1 2. A valve device for a silencer according to claim 1,
2 further comprising a plate spring member, a distal end of which
3 abuts on a surface of the plate-like valve to urge the plate-like
4 valve toward a valve close position, wherein the plate spring member
5 is obliquely arranged relative to the plate-like valve such that
6 an abutting position of the plate spring member against the
7 plate-like valve shifts toward the proximal portion of the
8 plate-like valve with an increase in a deflection amount of the
9 plate-like valve, and wherein the plate spring member abuts on
10 a reinforced area of the plate-like valve that is reinforced by
11 bending the side edges of the plate-like valve.

1 3. A valve device for a silencer according to claim 2,
2 wherein the plate spring member is bent to form a curved surface.

1 4. A valve device for a silencer according to claim 2,
2 further comprising a stopper member, wherein the plate-like valve
3 is sandwiched between the base and a proximal portion of the stopper
4 member and fixed thereto, and wherein the plate spring member is
5 fixed to a distal portion of the stopper member.

1 5. A valve device for a silencer according to claim 4,
2 wherein the stopper member, the plate-like valve, and the base
3 are fixed by welding.

1 6. A valve device for a silencer according to claim 4,
2 wherein the plate spring member is fixed to the stopper member
3 by welding.